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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/992,637	11/06/2001	Govind Kizhepat	GKIZ 1000-1	5830

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HAYNES BEFFEL & WOLFELD LLP
P O BOX 366
HALF MOON BAY, CA 94019

EXAMINER	
STEVENS, ROBERT	

ART UNIT	PAPER NUMBER
2176	

DATE MAILED: 10/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/992,637	KIZHEPAT, GOVIND	
	Examiner	Art Unit	
	Robert M Stevens	2176	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *06 November 2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-33* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-33* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *06 November 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *10/15/2002*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-33 are pending in Application No. 09/992,637, entitled "Method and Apparatus for Performing Computations and Operations on Data Using Data Steering", filed 10/17/2001 by Kizhepat. Claims 1, 12, 23 and 29 are independent.

2. The Office acknowledges Information Disclosure Statement filed on 10/15/2002.

3. No claim has been made to either foreign or provisional priority.

Specification

4. The Abstract is objected to because:

The abstract should not refer to purported merits or speculative applications of the invention and should not compare the invention with the prior art.

Appropriate correction is required.

Claim Rejections - 35 USC § 101

5. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

6. **Claims 29-33 are rejected under 35 U.S.C. 101** because the claimed invention lacks patentable utility.

Regarding claims 29-33: The language of the claims raises a question as to whether the claims are directed merely to an abstract idea that is not tied to the technological arts, environment, or machine which would result in a practical application producing a concrete, useful, and tangible result to form the basis of statutory subject matter under 35 U.S.C. §101. The claims read on a mental process or a computer program per se.

Claim Rejections - 35 USC § 112

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. **Claims 24-27 and 29-33 are rejected under 35 U.S.C. 112, second paragraph**, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 24-27, these dependent claims refer to the method of claim 21 (a system claim), rendering the scope of each claim indeterminable. The Office considers these claims to be dependent upon method claim 23, for the purposes of further examination.

Further regarding claim 27, there is a lack of antecedent basis for "said first and sets of control words".

Regarding claim 29, this claim is lacking an essential step, which provides a nexus between the providing of control words and how the reconfiguration is accomplished. See MPEP 2172.01.

Claims 30-33 are dependent upon claim 29 and therefore likewise rejected.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

10. **Claims 1-2, 4-5, 9-13, 15-16, 20-23 and 25-32 are rejected under 35 U.S.C. 103(a)** as being unpatentable over Frank J. Derfler, et al. (How Networks Work,

Millenium Edition, Que Corp., Indianapolis, IN, Sep. 2000, hereafter referred to as "Derfler") in view of Douglas E. Comer (Internetworking with TCP/IP, Volume I, 2nd Edition, Prentice Hall, Englewood Cliffs, NJ, © 1991, hereafter referred to as "Comer").

Regarding independent system claim 1, Derfler discloses:

> *A data processing system, comprising*:
> *a plurality of functional units;* (pp. 140-141 showing plurality of client PCs)
> *a plurality of routing units* (p. 140-141 showing plurality of routers), *responsive to respective routing control signals* (pp. 148-149 TCP/IP routing control signals) *and coupled to the plurality of functional units* (p. 148 via Ethernet Hub and p. 149 directly connected), *by which data is steered among the plurality of functional units,* (pp. 148-149 shows use of TCP/IP to route data to functional units via a router)

Derfler, however, does not explicitly disclose:

> *the routing control signals indicating a source functional unit and a destination functional unit for a data unit; and*
> *control word logic which supplies control words to the plurality of routing units, said control words including the routing control signals.*

Comer, though, discloses:

> *the routing control signals indicating a source functional unit and a destination functional unit for a data unit;* (p. 92 Fig. 7.3 "Source IP Address" and "Destination IP Address" fields) *and*
> *control word logic which supplies control words to the plurality of routing units* (p. 92 section 7.7.1 Datagram Format), *said control words including the routing control signals.* (p. 92 Fig. 7.3 "Destination IP Address" field)

It would have been obvious to one of ordinary skill in the art at the time of the invention to apply the teachings of Comer for the benefit of Derfler, because to do so would enable a sender and receiver to verify communications, thus preventing

misinterpretation of datagram contents as taught by Comer in p. 92 last paragraph – p. 93 first paragraph. These references were all applicable to the same field of endeavor, i.e., network design.

Regarding claim 2, which is dependent upon claim 1, the limitations of claim 1 have been previously addressed.

Derfler further discloses:

> *wherein said plurality of routing units includes at least one multiplexer having a plurality of inputs and coupled to respective functional units in the plurality of functional units and at least one output coupled to a functional unit in the plurality of functional units* (pp. 148-149 "Hub"), *and the routing control signal for the multiplexer* (p. 149 "IP")

Derfler, however, does not explicitly disclose:

> *specifies one of a plurality of inputs to indicate a source functional unit, and one of the at least one outputs to indicate a destination functional unit.*

Comer, though, discloses:

> *specifies one of a plurality of inputs to indicate a source functional unit* (p. 92 Fig. 7.3 "Source IP Address"), *and one of the at least one outputs to indicate a destination functional unit.* (p. 92 Fig. 7.3 "Destination IP Address")

It would have been obvious to one of ordinary skill in the art at the time of the invention to apply the teachings of Comer for the benefit of Derfler, because to do so would enable a sender and receiver to verify communications, thus preventing misinterpretation of datagram contents as taught by Comer in p. 92 last paragraph – p.

93 first paragraph. These references were all applicable to the same field of endeavor, i.e., network design.

Regarding claim 4, which is dependent upon claim 1, the limitations of claim 1 have been previously addressed.

Derfler further discloses:

> *wherein said plurality of functional units includes at least one storage element.* (p. 149 storage device [near "Corporate Network" label] connected to computer functional unit)

Regarding claim 5, which is dependent upon claim 1, the limitations of claim 1 have been previously addressed.

Derfler further discloses:

> *wherein said plurality of functional units includes at least one logic block which performs a plurality of available functions, and includes logic to select an output from one of the plurality of available functions in response to a routing control signal in the control word.* (p. 86 Client computer's "Network Communications" function [shown as diskette])

Regarding claim 9, which is dependent upon claim 1, the limitations of claim 1 have been previously addressed.

Derfler further discloses:

> *wherein functional units in the plurality of functional units comprise logic dedicated to specific processing tasks.* (p. 86 Client computer to provide remote printing service/task)

Regarding claim 10, which is dependent upon claim 1, the limitations of claim 1 have been previously addressed.

Derfler further discloses:

> *wherein functional units in the plurality of functional units comprise hardwired logic dedicated to specific processing tasks.* (p. 86 Client computer is hardwired to wiring hub and provides remote printing service/task)

Regarding claim 11, which is dependent upon claim 1, the limitations of claim 1 have been previously addressed.

Derfler, however, does not explicitly disclose:

> *wherein said control word logic supplies said control words synchronously to the plurality of functional units.*

Comer, though, discloses:

> *wherein said control word logic supplies said control words synchronously to the plurality of functional units.* (p. 184 Fig. 12.8 "SYN")

It would have been obvious to one of ordinary skill in the art at the time of the invention to apply the teachings of Comer for the benefit of Derfler, because to do so would enable a sender and receiver to verify communications, thus preventing misinterpretation of datagram contents as taught by Comer in p. 92 last paragraph – p. 93 first paragraph. These references were all applicable to the same field of endeavor, i.e., network design.

Regarding independent system claim 12, Derfler discloses:

A data processing system, comprising:

a plurality of processing blocks; (pp. 140-141 showing plurality of client PCs)

a plurality of routing units (p. 140-141 showing plurality of routers), *coupled to the plurality of processing blocks* (p. 148 via Ethernet Hub and p. 149 directly connected) *and responsive to respective routing control signals for the plurality of processing blocks, by which data is steered among the plurality of processing blocks;* (pp. 148-149 shows the use of TCP/IP to route data to processing blocks/PCs via router) *and*

block level control word logic which supplies signals the plurality of routing units (pp. 148-149 shows the use of TCP/IP to route data to processing blocks/PCs via router), *...; wherein processing blocks in said plurality of processing blocks respectively include:*

a plurality of functional units; (pp. 140-141 showing plurality of client PCs)

a plurality of unit level routing units (p. 140-141 showing plurality of routers), *coupled to the plurality of functional units* (p. 148 coupled via Ethernet Hub, p. 149 direct coupling) *and responsive to respective routing control signals for the plurality of functional units, by which data is steered among the plurality of functional units;* (pp. 148-149 shows use of TCP/IP to route data to functional units/PCs via router)

... .

Derfler, however, does not explicitly disclose:

said control words including the routing control signals for the processing blocks; and

...

functional unit level control word logic which supplies signals the plurality of routing units, said control words including the routing control signals for the plurality of functional units.

Comer, though, discloses:

said control words including the routing control signals for the processing blocks; (p. 92 Fig. 7.3) *and*

...

functional unit level control word logic which supplies signals the plurality of routing units, said control words including the routing control signals for the plurality of functional units. (p. 92 section 7.7.1 Datagram Format and Fig. 7.3)

It would have been obvious to one of ordinary skill in the art at the time of the invention to apply the teachings of Comer for the benefit of Derfler, because to do so would enable a sender and receiver to verify communications, thus preventing misinterpretation of datagram contents as taught by Comer in p. 92 last paragraph – p. 93 first paragraph. These references were all applicable to the same field of endeavor, i.e., network design.

Claim 13 is substantially similar to claim 2 and therefore likewise rejected.

Claim 15 is substantially similar to claim 4 and therefore likewise rejected.

Claim 16 is substantially similar to claim 5 and therefore likewise rejected.

Claim 20 is substantially similar to claim 9 and therefore likewise rejected.

Claim 21 is substantially similar to claim 10 and therefore likewise rejected.

Claim 22 is substantially similar to claim 11 and therefore likewise rejected.

Regarding independent system claim 23, Derfler discloses:

A method of processing data, in a data processing engine that includes a plurality of functional units (pp. 140-141 showing plurality of client PCs), *comprising*:

routing data among the plurality of functional units according to the set of software control words (p. 149 router to hub using TCP/IP) *to produce a result* (p. 86 Client computer/print server prints out a resulting document)

Derfler, however, does not explicitly disclose:

providing a set of software control words that specify a route among the plurality of functional units;

Comer, though, discloses:

providing a set of software control words that specify a route among the plurality of functional units; (p. 102 Fig. 7.10, 4th entry "Loose Source Routing")

It would have been obvious to one of ordinary skill in the art at the time of the invention to apply the teachings of Comer for the benefit of Derfler, because to do so would enable a sender and receiver to verify communications, thus preventing misinterpretation of datagram contents as taught by Comer in p. 92 last paragraph – p. 93 first paragraph. These references were all applicable to the same field of endeavor, i.e., network design.

Claim 25 is substantially similar to claim 9 and therefore likewise rejected.

Claim 26 is substantially similar to claim 10 and therefore likewise rejected.

Regarding claim 27, which is dependent upon claim 23, the limitations of claim 23 have been previously addressed.

Derfler further discloses:

> *wherein the data processing engine comprises a plurality of switches interconnecting the plurality of functional units, and said first and second sets of control words specify data paths through the plurality of switches.*

Derfler, however, does not explicitly disclose:

> *and said first and second sets of control words specify data paths through the plurality of switches.*

Comer, though, discloses:

> *and said first* (p. 104 1st sentence under Fig. 7.12 discusses Strict Source Routing) *and second sets of control words specify data paths through the plurality of switches.* (p. 104 3rd and 4th sentence under Fig. 7.12 discusses Loose Source Routing)

It would have been obvious to one of ordinary skill in the art at the time of the invention to apply the teachings of Comer for the benefit of Derfler, because to do so would enable a sender and receiver to verify communications, thus preventing misinterpretation of datagram contents as taught by Comer in p. 92 last paragraph – p. 93 first paragraph. These references were all applicable to the same field of endeavor, i.e., network design.

Claim 28 is substantially similar to claim 11 and therefore likewise rejected.

Regarding independent system claim 29, Derfler discloses:

A method of processing data, in a data processing engine that includes a plurality of functional units (pp. 140-141 showing plurality of client PCs), *comprising*:

providing a first set of software control words ... ; (p. 149 use of TCP/IP for routing) *and*

providing a second set of software control words ... (p. 149 use of TCP/IP for routing)

Derfler, however, does not explicitly disclose:

... that specify a first data path according to a first configuration of the plurality of functional units;

... that specifies a second data path according to a second configuration of the plurality of functional units, whereby the plurality of functional units is reconfigured to perform a different function.

Comer, though, discloses:

... that specify a first data path according to a first configuration of the plurality of functional units; (p. 104 1ST sentence under Fig. 7.12 re: Strict Source Routing)

... that specifies a second data path according to a second configuration of the plurality of functional units (p. 104 3rd and 4th sentences under Fig. 7.12 discussing Loose Source Routing [LSR]), *whereby the plurality of functional units is reconfigured to perform a different function.* (p. 104 5th and 6th sentences under Fig. 7.12 disclose that a strict network configuration need not be followed using LSR, effectively reconfiguring the network)

It would have been obvious to one of ordinary skill in the art at the time of the invention to apply the teachings of Comer for the benefit of Derfler, because to do so would enable a sender and receiver to verify communications, thus preventing misinterpretation of datagram contents as taught by Comer in p. 92 last paragraph – p.

93 first paragraph. These references were all applicable to the same field of endeavor, i.e., network design.

Claim 30 is substantially similar to claim 9 and therefore likewise rejected.

Claim 31 is substantially similar to claim 10 and therefore likewise rejected.

Claim 32 is substantially similar to claim 27 and therefore likewise rejected.

11. **Claims 6-8, 17-19, 24 and 33 are rejected under 35 U.S.C. 103(a)** as being unpatentable over Frank J. Derfler, et al. (How Networks Work, Millenium Edition, Que Corp., Indianapolis, IN, Sep. 2000, hereafter referred to as "Derfler") in view of Douglas E. Comer (Internetworking with TCP/IP, Volume I, 2nd Edition, Prentice Hall, Englewood Cliffs, NJ, © 1991, hereafter referred to as "Comer") and further in view of W. Richard Stevens, UNIX Network Programming, Prentice Hall, Englewood Cliffs, NJ, © 1990, hereafter referred to as "Stevens").

Regarding claim 6, which is dependent upon claim 1, the limitations of claim 1 have been previously addressed.

Derfler further discloses:

wherein said plurality of functional units includes a memory responsive to addresses (p. 149 TCP/IP message via router and database storage [near "Corporate Network" label]),

Derfler does not explicitly disclose:

write control signals, and read control signals, and the control word includes at least one of the mite control signals and read control signals.

Stevens, though, discloses:

write control signals, and read control signals, and the control word includes at least one of the write control signals and read control signals. (p. 261 Fig. 6.2 "Client write() and read()")

It would have been obvious to one of ordinary skill in the art at the time of the invention to apply the teachings of Stevens for the benefit of Derfler in view of Comer, because to do so would facilitate data communications between a client and server in a connection-oriented environment as taught by Stevens on p. 261 Fig. 6.2. These references were all applicable to the same field of endeavor, i.e., network design.

Regarding claim 7, which is dependent upon claim 6, the limitations of claim 6 have been previously addressed.

Derfler, however, does not explicitly disclose:

wherein said control word includes an address for said memory.

Comer, though, discloses:

wherein said control word includes an address for said memory. (p. 92 Fig. 7.3 "Destination IP Address")

It would have been obvious to one of ordinary skill in the art at the time of the invention to apply the teachings of Comer for the benefit of Derfler and Stevens, because to do so would enable a sender and receiver to verify communications, thus preventing misinterpretation of datagram contents as taught by Comer in p. 92 last paragraph – p. 93 first paragraph. These references were all applicable to the same field of endeavor, i.e., network design.

Regarding claim 8, which is dependent upon claim 6, the limitations of claim 6 have been previously addressed.

Derfler does not explicitly disclose:

wherein an address for said memory is supplied by one of the plurality of functional units.

Stevens, though, discloses:

wherein an address for said memory is supplied by one of the plurality of functional units. (p. 261 Fig. 6.2 "Client write() and read()")

It would have been obvious to one of ordinary skill in the art at the time of the invention to apply the teachings of Stevens for the benefit of Derfler in view of Comer, because to do so would facilitate data communications between a client and server in a connection-oriented environment as taught by Stevens on p. 261 Fig. 6.2. These references were all applicable to the same field of endeavor, i.e., network design.

Claim 17 is substantially similar to claim 6 and therefore likewise rejected.

Claim 18 is substantially similar to claim 7 and therefore likewise rejected.

Claim 19 is substantially similar to claim 8 and therefore likewise rejected.

Regarding claim 24, which is dependent upon claim 23, the limitations of claim 23 have been previously addressed.

Derfler does not explicitly disclose:

> *compiling a high level programming language specifying the result to produce the set of software control words.*

Stevens, though, discloses:

> *compiling a high level programming language specifying the result to produce the set of software control words.* (pp. 314-315 showing C code for fetching TCP/IP control words and the first sentence below that code stating "compile and execute this code")

It would have been obvious to one of ordinary skill in the art at the time of the invention to apply the teachings of Stevens for the benefit of Derfler in view of Comer, because to do so would allow a programmer to fetch and/or set control word options as taught by Stevens on p. 314, the sentence preceding the code listing. These references were all applicable to the same field of endeavor, i.e., network design.

Claim 33 is substantially similar to claim 24 and therefore likewise rejected.

12. **Claims 3 and 14 are rejected under 35 U.S.C. 103(a)** as being unpatentable over Frank J. Derfler, et al. (How Networks Work, Millenium Edition, Que Corp., Indianapolis, IN, Sep. 2000, hereafter referred to as "Derfler") in view of Douglas E. Comer (Internetworking with TCP/IP, Volume I, 2nd Edition, Prentice Hall, Englewood Cliffs, NJ, © 1991, hereafter referred to as "Comer") and further in view of Antonov (US Patent No. 6,044,080, filed Nov. 19, 1996 and issued Mar. 28, 2000, hereafter referred to as "Antonov").

Regarding claim 3, which is dependent upon claim 1, the limitations of claim 1 have been previously discussed. Derfler, however, does not explicitly disclose:

> *wherein said plurality of routing units includes at least one crossbar switch.*

Antonov, though, discloses:

> *wherein said plurality of routing units includes at least one crossbar switch.* (Fig1B #33 and discussion at col. 1 lines 56-57 and col. 2 lines 1-3)

It would have been obvious to one of ordinary skill in the art at the time of the invention to apply the teachings of Antonov for the benefit of Derfler in view of Comer, because to do so would allow network designer to provide a more advanced IP routing

technology as taught by Antonov in col. 2 lines 1-3. These references were all applicable to the same field of endeavor, i.e., network design.

Claim 14 is substantially similar to claim 3 and therefore likewise rejected.

Conclusion

1. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Non-patent Literature

"Networking Basics", downloaded from: dbserv.jinr.ru/js/content/java/New-tutorial/networking/overview/networking.pdf, Oct. 7, 1998, pp. 1-4.

Keyvani, Maryam, et al., "VHDL Implementation of a Crossbar Packet Switch", Communications Networks Laboratory, School of Engineering Science, Simon Frasier University, Mar. 13, 2001, p. 1.

Chang, Andrew, et al., "The Effects of Explicitly Parallel Mechanisms on the Multi-ALU Processor Cluster Pipeline", Computer Systems Laboratory, Stanford University, © 1998, pp. 1-8.

Goldstein, Seth Copen, et al., "PipeRench: A Coprocessor for Streaming Multimedia Acceleration", School of Computer Science, Carnegie Mellon University, May 1999, pp. 1-12.

Hamblen, James O., "Rapid Prototyping Using Field Programmable Logic Devices", IEEE Micro, May-June 2000, pp. 29-37.

Vaidya, Aniruddha S., et al., "LAPSES: A Recipe for High Performance Adaptive Router Design", downloaded from: www.cse.psu.edu/~anand/csl/papers/hpca99.pdf, 1999, 8 pages.

"XB1 Crossbar Switch Data Sheet", Sun Microelectronics, July 1997, pp. 1-14.

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Fleck et al	US2001/0042193
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Apostolopoulos	US2002/0116715

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Ahmed et al	6,690,659
Angle et al	6,661,788
Lee et al	6,728,777
Mousseau et al	6,438,585
Ogawa et al	6,330,242
Merchant et al	6,112,294
Carbine et al	6,378,061
Kostic et al	6,519,695
Yamada et al	6,438,680
Chong et al	6,651,131
Hsieh et al	5,717,871
Hsieh et al	5,734,334
Varghese et al	5,905,723
Dye	6,412,061
Cichon	6,675,283
Lyles	5,689,508
Sharma	5,559,970
Stone	5,598,410

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert M Stevens whose telephone number is (703) 605-4367. The examiner can normally be reached on M-F 7:00 - 3:30. After mid-October 2004, the Examiner can be reached at (571) 272-4102.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Feild can currently be reached on (703) 305-9792. The current fax phone number for the organization where this application or proceeding is assigned is 703-872-9306. However, note that the main number for Technology Center 2100 will be (571) 272-2100, as of mid-October 2004.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Robert M. Stevens
Art Unit 2176
Date: September 30, 2004

rms

JOSEPH FEILD
SUPERVISORY PATENT EXAMINER